



Results of Bi-Monthly Monitoring  
Well Gauging Program Conducted at  
Building 95, Old Navy Fuel Farm, and Site 7.  
Naval Air Station, Brunswick, Maine

Contract No. N62472-92-D-1296  
Contract Task Order No. 0047



Prepared for

Department of the Navy  
Northern Division  
Naval Facilities Engineering Command  
10 Industrial Highway  
Mail Stop No. 82  
Lester, Pennsylvania 19113-2090

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August 1998  
FINAL  
296.0047

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*8/19/98*

Date

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Program Manager

*8-19-98*

Date

August 1998  
FINAL  
Project No. 296.0047

## QUALITY REVIEW STATEMENT

Contract No. N62472-92-D-1296

EA Project Number: 29600.47.7220

Contract Task Order No. 0047

Activity: Naval Air Station, Brunswick, Maine

### Description of Report/Deliverable:

Final Results of Bi-Monthly Well Gauging Program Conducted at Building 95, Old Navy Fuel Farm, and Site 7, Naval Air Station, Brunswick, Maine

EA CTO Manager: Charles E. McLeod, P.E.

In compliance with EA's Quality Procedures for review of deliverables outlined in the Quality Management Plan, this final deliverable has been reviewed for quality by the undersigned Senior Technical Reviewer(s). The information presented in this report/deliverable has been prepared in accordance with the approved Implementation Plan for the Contract Task Order (CTO) and reflects a proper presentation of the data and/or the conclusions drawn and/or the analyses or design completed during the conduct of the work. This statement is based upon the standards identified in the CTO and/or the standard of care existing at the time of preparation.

Senior Technical Reviewer

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Branch Manager, New York Operations

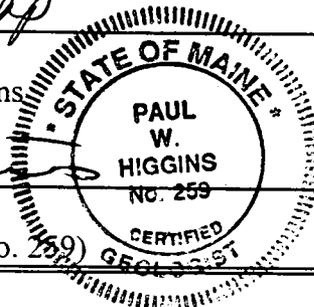
*8/20/98*

(Date)

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State of Maine Certified Geologist (No. 259)



*Aug. 19, 1998*

(Date)

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3	Summary of water level gauging data collected at site monitoring wells from 9 January to 4 November 1997, Site 7, Naval Air Station, Brunswick, Maine.

## 1. PROJECT DESCRIPTION

Under Contract No. N62472-92-D-1296, Contract Task Order No. 0047, Northern Division, Naval Facilities Engineering Command contracted with EA Engineering, Science, and Technology to perform long-term monitoring at Sites 1 and 3, Eastern Plume, Site 9, and Building 95 at Naval Air Station (NAS), Brunswick, Maine (Figure 1). As part of the long-term monitoring program, water level gauging data were collected at three contiguous sites to assess direction of shallow ground-water flow at Building 95, the Old Navy Fuel Farm, and Site 7. This summary report presents the results of six water level gauging events conducted at 2-month intervals during 1997. Figure 2 shows locations of the monitoring wells gauged.

## 2. WATER LEVEL GAUGING PROGRAM

Following the 1 May 1996 Restoration Advisory Board meeting held at NAS Brunswick, a bi-monthly well gauging program was initiated at all long-term monitoring program sites, plus Site 7 and the Old Navy Fuel Farm. The purpose of undertaking the program was to permit a more comprehensive assessment of regional ground-water flow in this area of NAS Brunswick. At Building 95, the Old Navy Fuel Farm, and Site 7, bi-monthly water level gauging was conducted to assess direction of ground-water flow in sand deposits above the marine clay (Presumpscot Formation), encountered at depths ranging from 8 ft to 15 ft at these sites.

Water level gauging at the three sites was conducted during bi-monthly gauging events (January, May, and September 1997), and during scheduled tri-annual sampling events (March, July, and November 1997). Bi-monthly water table elevation data were collected and contoured to assess variations in ground-water flow direction which may be attributable to seasonality. The data collected during the water level gauging events conducted at site wells located at Building 95, the Old Navy Fuel Farm, and Site 7 are presented in Tables 1 through 3, respectively. The Field Record of Well Gauging forms completed during the six gauging events are provided in Appendix A.

Monitoring well gauging data were recorded during six gauging events conducted during 1997: 9 January, 7 March, 2 May, 2-3 July, 2 September, and 4 November. Water level gauging at wells located at Site 7 and Building 95 was conducted using a Slope Indicator Co. water level indicator Model No. 51453. Water level gauging at the Old Navy Fuel Farm was conducted using a Solinst Model No. 121 interface meter due to the potential for observing light, non-aqueous phase liquid (LNAPL) in wells. These probes are capable of determining depth to water to an accuracy of 0.01 ft. Prior to use, and after use at each well, the gauging instruments were decontaminated according to the procedures established in the Long-Term Monitoring Plan prepared by ABB Environmental Services, Inc. (ABB-ES 1994)<sup>1</sup>.

---

1. ABB-ES. 1994. Final Long-Term Monitoring Plan Building 95, Sites 1 and 3 and Eastern Plume. August.

At the Old Navy Fuel Farm, 15 of 16 wells were gauged. One well (MW-NASB-056R) was consistently not gauged during 1997 due to an obstruction within the PVC riser. In December 1996, MW-NASB-056 was replaced, although the PVC pipe was damaged by ice in January 1998. This well is scheduled to be repaired following the Winter of 1998. Ground-water elevation data were recorded at the 6 monitoring wells at Site 7 and the 4 monitoring wells at Building 95 during each water elevation gauging event. With the exception of well MW-056, monitoring wells at the 3 sites were observed to be in good condition. There were no observations of physical tampering of the site wells.

### 3. RESULTS OF WATER LEVEL GAUGING PROGRAM

Water level data presented in Tables 1 through 3 were used to develop interpreted water table elevation maps for each of the six gauging events. Figures 3 through 8 provide the interpreted potentiometric surface and ground-water flow direction for 9 January, 7 March, 2 May, 2-3 July, 2 September, and 4 November 1997 water level data, respectively.

Based on the water table elevation data collected in January, March, May, July, September, and November 1997, the dominant direction of ground-water flow in the shallow overburden saturated zone at Building 95, the Old Navy Fuel Farm, and Site 7 is to the east-southeast. This ground-water flow direction is consistent with historic data obtained from each of the sites.

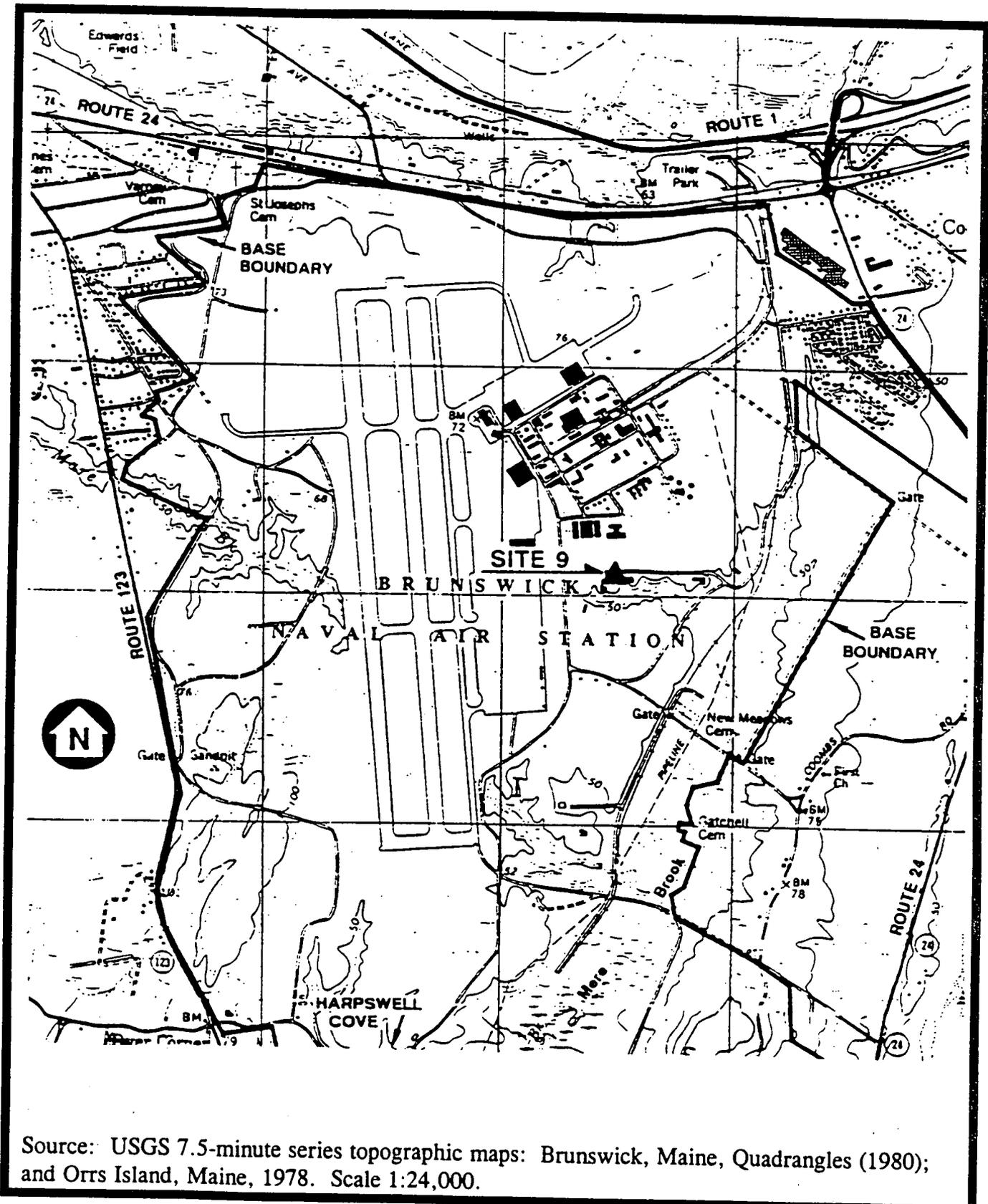
Significantly lower ground-water elevations were observed at MW-NASB-091 than in nearby monitoring wells at Site 7. However, this well is screened within the clay layer (screen interval from 7 to 17 ft, clay from 8 to 18 ft) which may account for the consistently low water elevations.

The hydraulic gradient across the three sites was assessed for each gauging event based on potentiometric head contours measured parallel to the direction of ground-water flow (from MW-NASB-044 to MW-NASB-206) at the Old Navy Fuel Farm. Based on data collected during the six gauging events conducted in 1997, the hydraulic gradient is characterized as shallow, averaging approximately 1.4 percent (0.014 ft per ft).

Depth to ground water at wells located at Building 95, the Old Navy Fuel Farm, and Site 7 generally varied less than 5 ft between the seasonally high and low water table conditions (May and September 1997, respectively). Between May and September 1997, water table elevations decreased an average of 3.42 ft at Building 95, 2.95 ft at the Old Navy Fuel Farm, and 4.09 ft at Site 7. No measurable LNAPL (i.e., greater than 0.01 ft) was reported in Old Navy Fuel Farm wells throughout the reporting period.

#### 4. SUMMARY

Water level measurements were obtained from 4 wells at Building 95, 15 wells at the Old Navy Fuel Farm, and 6 wells at Site 7 on six occasions during 1997, including three tri-annual sampling events (7 March, 2-3 July, and 4 November 1997) and three bi-monthly gauging events (9 January, 2 May, and 2 September 1997). The dominant direction of ground-water flow in the shallow overburden saturated zone at these sites is to the east-southeast, consistent with historic data. The highest water table elevations were measured during the May 1997 gauging event, and lowest water table elevations were noted during the September 1997 gauging event. There were no indications of the presence of LNAPL at monitoring wells at the Old Navy Fuel Farm.



Source: USGS 7.5-minute series topographic maps: Brunswick, Maine, Quadrangles (1980); and Orrs Island, Maine, 1978. Scale 1:24,000.

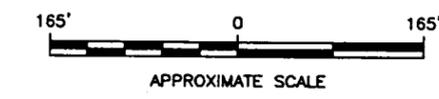
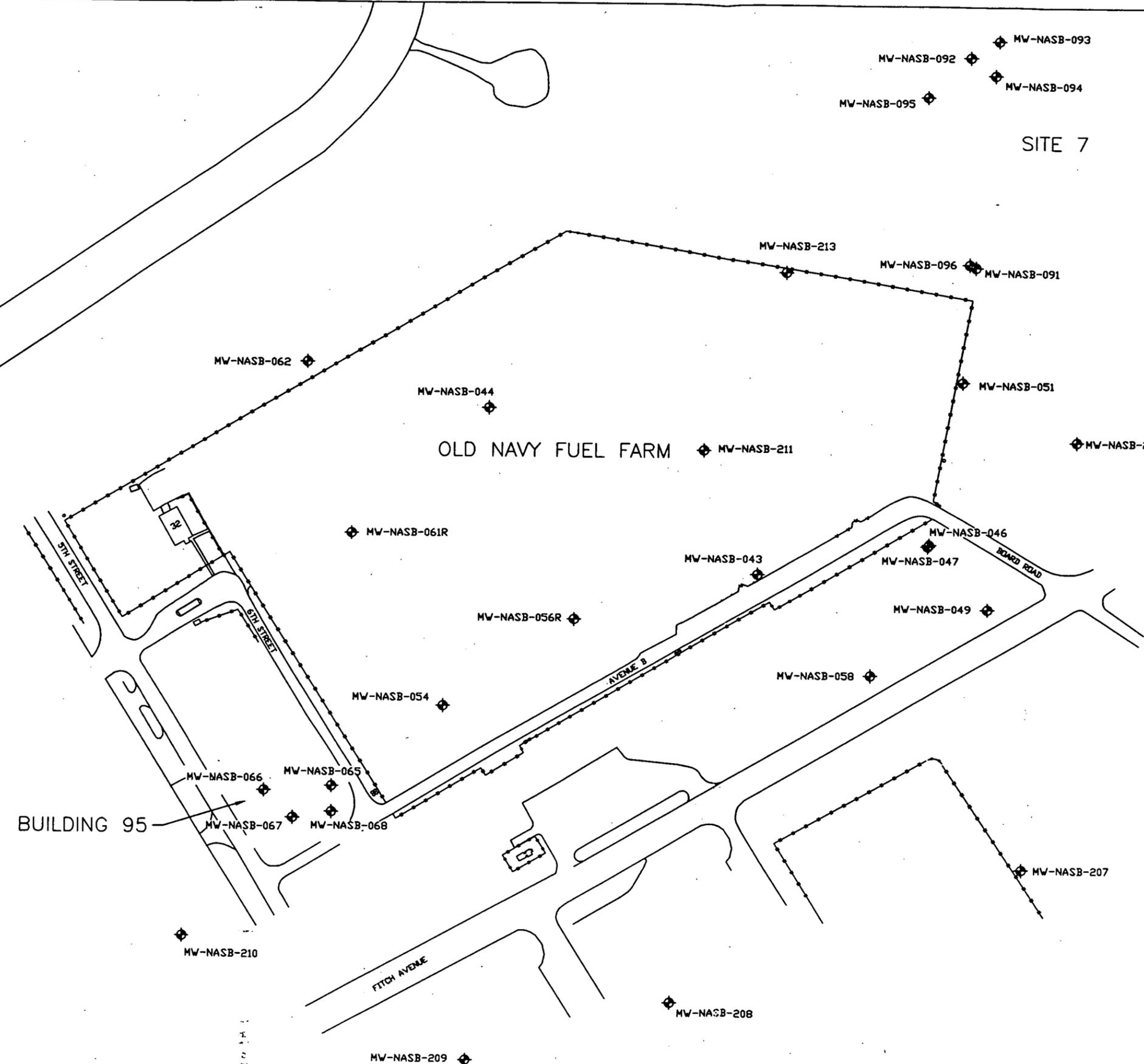
Figure 1. Site location map of Naval Air Station, Brunswick, Maine.





MONITORING WELL LOCATION  
 MW-NASB-094  
 CHAIN LINK FENCE

SITE 7

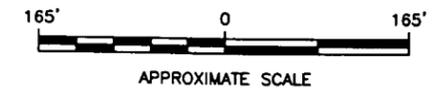
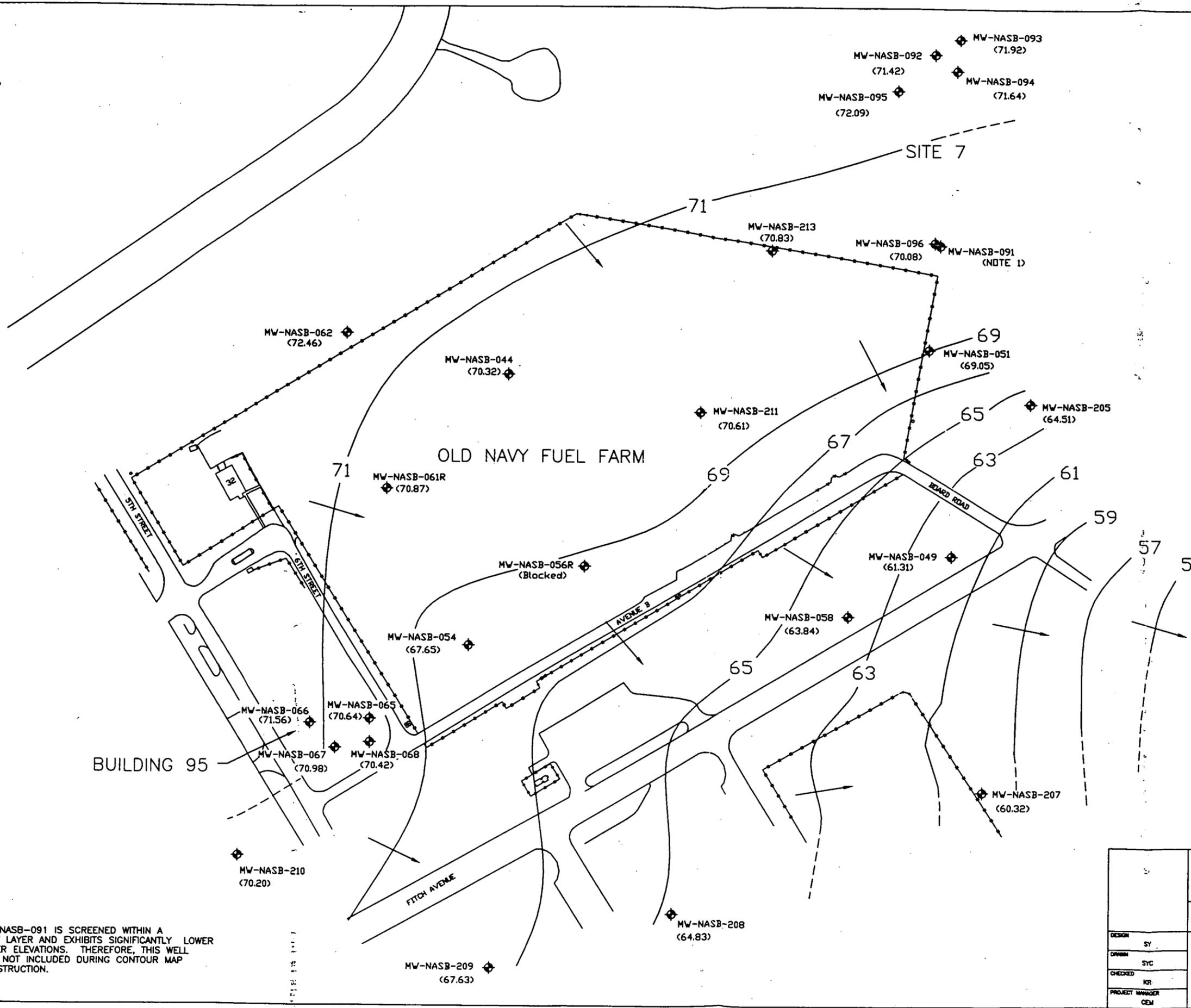


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LOCATION OF MONITORING WELLS AT SITE 7, OLD NAVY FUEL FARM AND BUILDING 95 NAS BRUNSWICK, MAINE	
FIGURE 2	
DESIGN SY DRAWN SY CHECKED PLN PROJECT MANAGER MSB	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.</p> <p style="font-size: 8px;">             Lexington Center              18 Lexington Circle              Burlington, Maryland 21152              (301) 771-4800           </p> </div> <div style="width: 45%;"> <p style="font-size: 8px;">             BOSTON              CHICAGO              LINCOLN              NEW YORK              NEW JERSEY              PHOENIX              DALLAS              LOS ANGELES              SAN FRANCISCO           </p> </div> </div> <div style="font-size: 8px; margin-top: 5px;">             DATE 21 MARCH 97              SCALE AS SHOWN              PROJECT NO. 29000.35              SHEET NO.           </div>

 MONITORING WELL LOCATION (WATER TABLE ELEVATION, FT MSL)  
 MW-NASB-094 (71.64)  
 INTERPRETED DIRECTION OF GROUND-WATER FLOW  
 71  INTERPRETED POTENTIOMETRIC SURFACE; DASHED WHERE INFERRED (CONTOUR INTERVAL = 2 FT)  
 CHAIN LINK FENCE

WELL DESIGNATION	WELL RISER ELEVATION (FT MSL)
MW-NASB-065	74.33
MW-NASB-066	78.81
MW-NASB-067	74.38
MW-NASB-068	74.79
MW-NASB-044	73.18
MW-NASB-049	66.97
MW-NASB-051	73.20
MW-NASB-054	75.49
MW-NASB-056	73.53
MW-NASB-058	69.80
MW-NASB-062	80.70
MW-NASB-205	71.39
MW-NASB-206	59.01
MW-NASB-207	66.22
MW-NASB-208	74.70
MW-NASB-209	75.29
MW-NASB-210	77.55
MW-NASB-211	76.81
MW-NASB-213	76.81
MW-NASB-091	76.29
MW-NASB-092	77.24
MW-NASB-093	77.67
MW-NASB-094	77.30
MW-NASB-095	79.15
MW-NASB-096	73.56



NOTE:  
 1. MW-NASB-091 IS SCREENED WITHIN A CLAY LAYER AND EXHIBITS SIGNIFICANTLY LOWER WATER ELEVATIONS. THEREFORE, THIS WELL WAS NOT INCLUDED DURING CONTOUR MAP CONSTRUCTION.

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**POTENTIOMETRIC SURFACE DATA FOR SITE 7  
 OLD NAVY FUEL FARM AND BUILDING 95  
 9 JANUARY 1997 DATA  
 NAVAL AIR STATION, BRUNSWICK, MAINE**

FIGURE 3

DESIGN	SY	 <b>EA ENGINEERING,          SCIENCE, AND          TECHNOLOGY, INC.</b>  <small>           BALTIMORE            CHICAGO            CINCINNATI            NEW YORK            NEW JERSEY            PHOENIX            RICHMOND            WASHINGTON            WASHINGTON FIELD            WASHINGTON OFFICE         </small>	DATE	7 JANUARY 1998
DRAWN	SYC		SCALE	AS SHOWN
CHECKED	KR		PROJECT NO.	29800.47
PROJECT MANAGER	CEM		SHEET NO.	-
			<small>           Lovett Center            15 Lovett Circle            Sparks, Maryland 21152            (301) 771-4600         </small>	

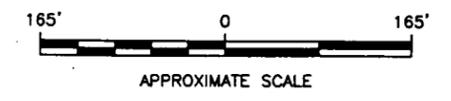
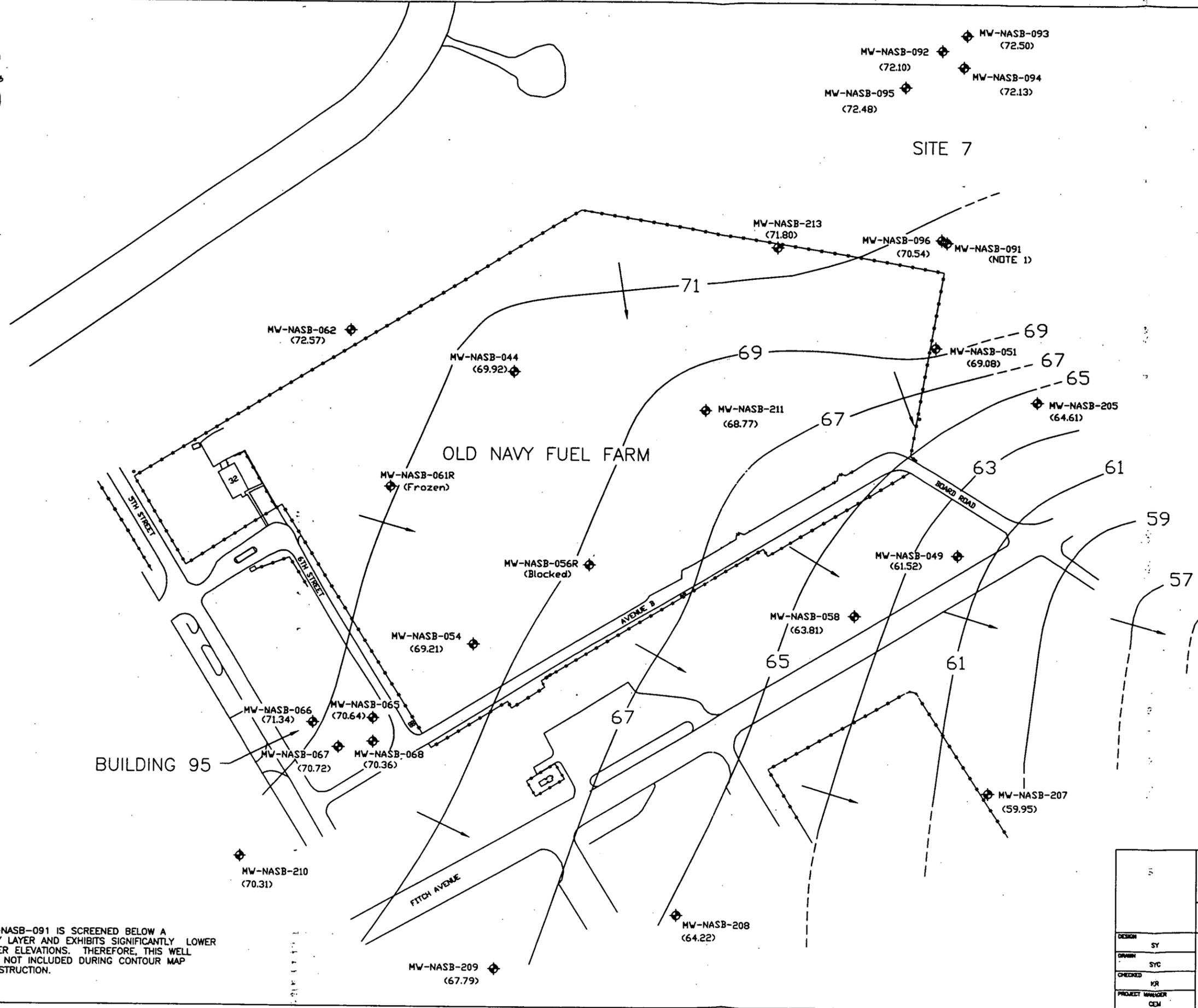
◆ MONITORING WELL LOCATION  
 (WATER TABLE ELEVATION, FT MSL)  
 MW-NASB-094 (72.13)

→ INTERPRETED DIRECTION OF  
 GROUND-WATER FLOW

71 — INTERPRETED POTENTIOMETRIC SURFACE;  
 DASHED WHERE INFERRED  
 (CONTOUR INTERVAL = 2 FT)

- - - CHAIN LINK FENCE

WELL DESIGNATION	WELL RISER ELEVATION (FT MSL)
MW-NASB-065	74.29
MW-NASB-066	78.79
MW-NASB-067	74.30
MW-NASB-068	74.86
MW-NASB-044	73.18
MW-NASB-049	66.97
MW-NASB-051	73.20
MW-NASB-054	75.49
MW-NASB-056	73.53
MW-NASB-058	69.80
MW-NASB-062	80.70
MW-NASB-205	71.39
MW-NASB-206	59.01
MW-NASB-207	66.22
MW-NASB-208	74.70
MW-NASB-209	75.29
MW-NASB-210	77.55
MW-NASB-211	75.55
MW-NASB-213	76.81
MW-NASB-091	76.29
MW-NASB-092	77.24
MW-NASB-093	77.67
MW-NASB-094	77.30
MW-NASB-095	79.15
MW-NASB-096	73.56



NOTE:  
1. MW-NASB-091 IS SCREENED BELOW A CLAY LAYER AND EXHIBITS SIGNIFICANTLY LOWER WATER ELEVATIONS. THEREFORE, THIS WELL WAS NOT INCLUDED DURING CONTOUR MAP CONSTRUCTION.

DRG. FILE NO. P:\04\3800\7\BRUNSWICK\1997.dwg

POTENTIOMETRIC SURFACE DATA FOR SITE 7 OLD NAVY FUEL FARM AND BUILDING 95 7 MARCH 1997 DATA NAVAL AIR STATION, BRUNSWICK, MAINE	
FIGURE 4	
DESIGN: SY DRAWN: SYC CHECKED: YJR PROJECT MANAGER: CEM	<div style="text-align: center;"> <p>EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.</p> <p>15 Lovett Circle Sparks, Maryland 21152 (301) 771-4800</p> </div> <div style="text-align: center;"> <p>DATE: 7 JANUARY 1998</p> <p>SCALE: AS SHOWN</p> <p>PROJECT NO.: 29800.47</p> <p>SHEET NO.: -</p> </div>



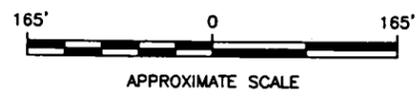
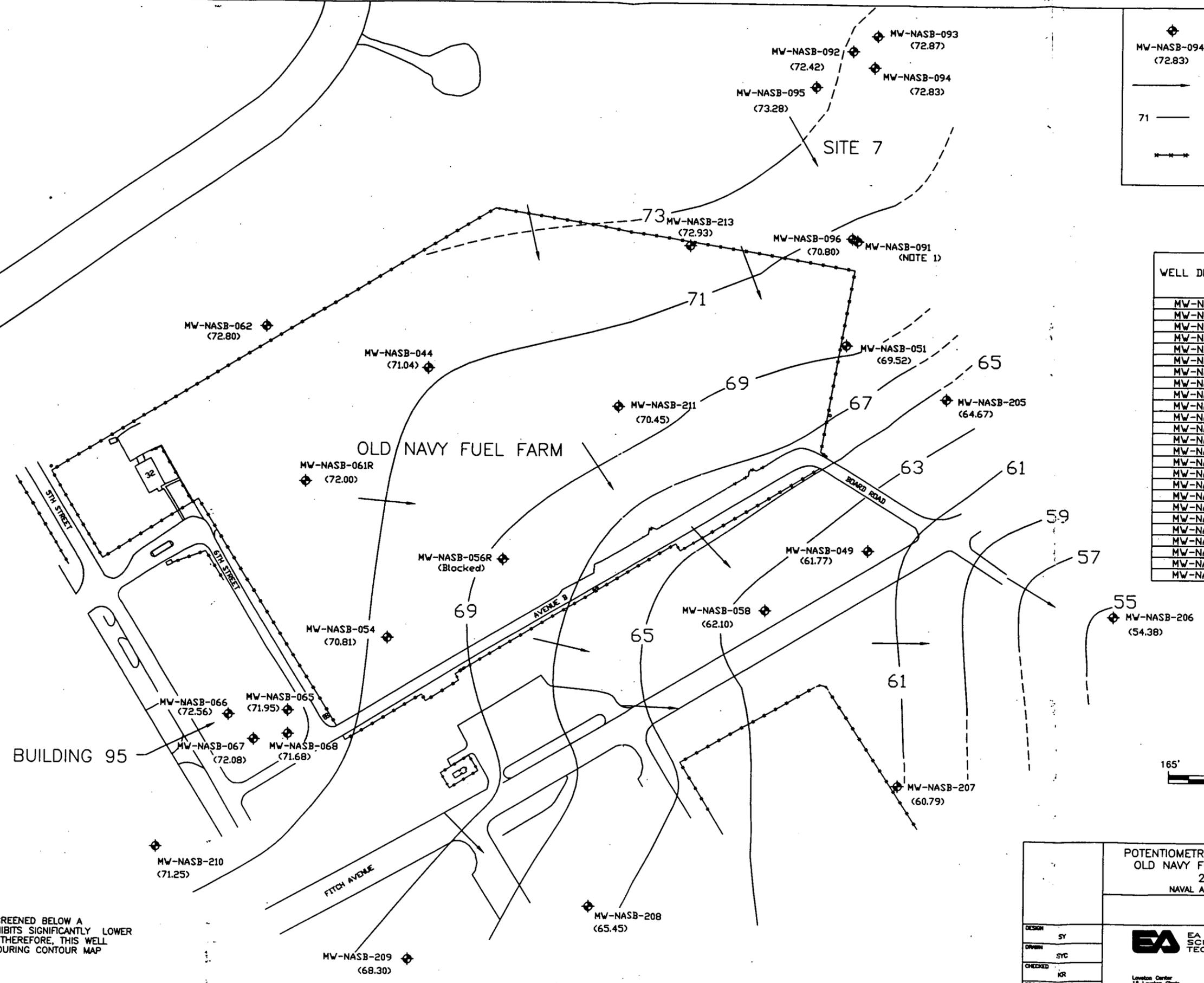
◆ MONITORING WELL LOCATION  
 (WATER TABLE ELEVATION, FT MSL)  
 MW-NASB-094 (72.83)

→ INTERPRETED DIRECTION OF  
 GROUND-WATER FLOW

71 ——— INTERPRETED POTENTIOMETRIC SURFACE;  
 DASHED WHERE INFERRED  
 (CONTOUR INTERVAL = 2 FT)

——— CHAIN LINK FENCE

WELL DESIGNATION	WELL RISER ELEVATION (FT MSL)
MW-NASB-065	74.29
MW-NASB-066	78.79
MW-NASB-067	74.30
MW-NASB-068	74.86
MW-NASB-044	73.18
MW-NASB-049	66.97
MW-NASB-051	73.20
MW-NASB-054	75.49
MW-NASB-056	73.53
MW-NASB-058	69.80
MW-NASB-062	80.70
MW-NASB-205	71.39
MW-NASB-206	59.01
MW-NASB-207	66.22
MW-NASB-208	74.70
MW-NASB-209	75.29
MW-NASB-210	77.55
MW-NASB-211	75.55
MW-NASB-213	76.81
MW-NASB-091	76.29
MW-NASB-092	77.24
MW-NASB-093	77.67
MW-NASB-094	77.30
MW-NASB-095	79.15
MW-NASB-096	73.56



**NOTE:**  
 1. MW-NASB-091 IS SCREENED BELOW A CLAY LAYER AND EXHIBITS SIGNIFICANTLY LOWER WATER ELEVATIONS. THEREFORE, THIS WELL WAS NOT INCLUDED DURING CONTOUR MAP CONSTRUCTION.

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**POTENTIOMETRIC SURFACE DATA FOR SITE 7  
 OLD NAVY FUEL FARM AND BUILDING 95  
 2 MAY 1997 DATA  
 NAVAL AIR STATION, BRUNSWICK, MAINE**

**FIGURE 5**

DESIGN	SY	DATE	7 JANUARY 1998
DRAWN	SYC	SCALE	AS SHOWN
CHECKED	KR	PROJECT NO.	29600.47
PROJECT MANAGER	CEM	SHEET NO.	-

**EA** ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.

18 Lonsdon Circle  
 Sparks, Maryland 21152  
 (301) 771-4800

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 AND  
 HIS  
 PERSONNEL



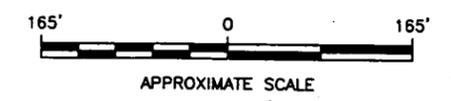
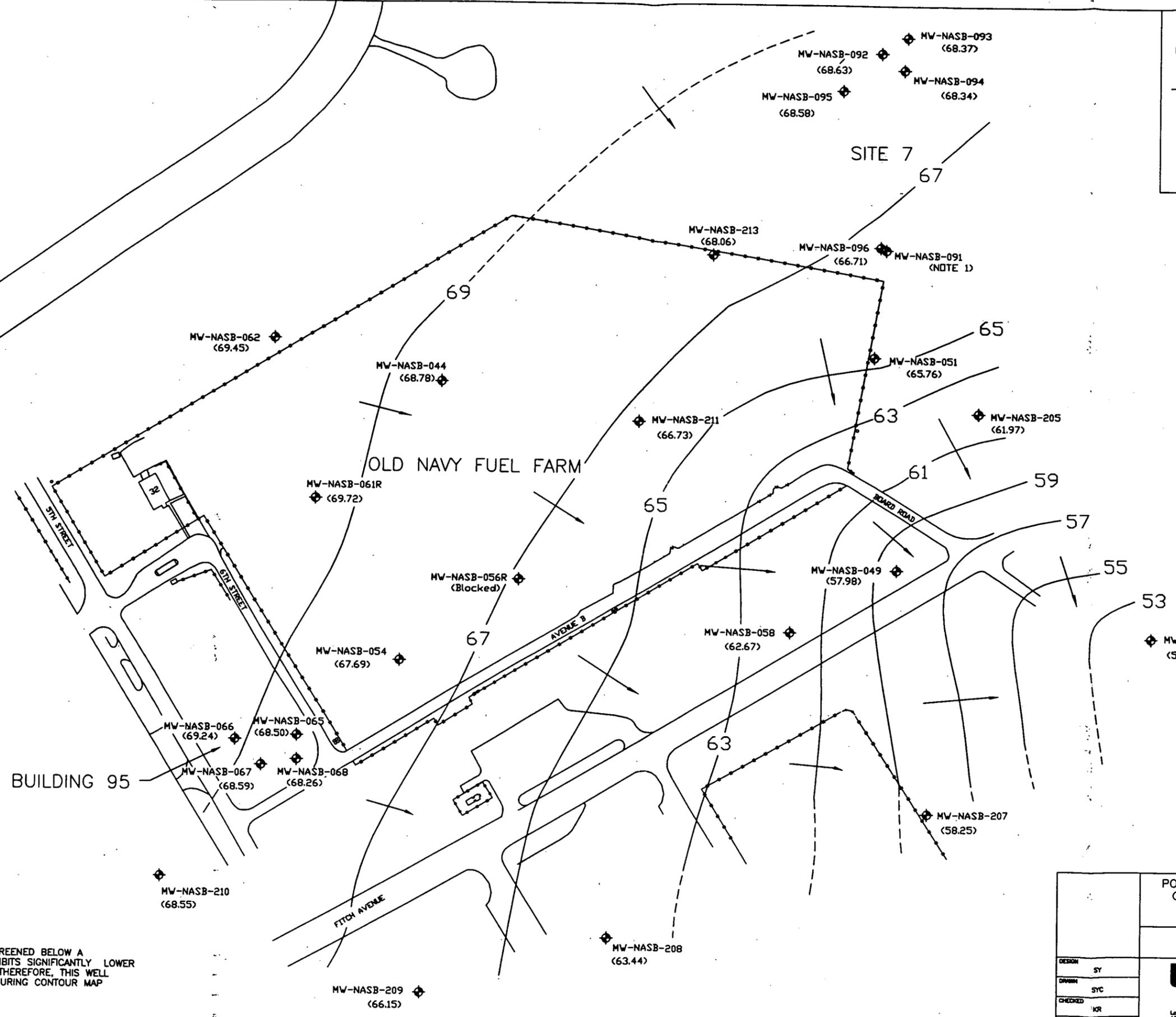
◆ MONITORING WELL LOCATION  
 (WATER TABLE ELEVATION, FT MSL)  
 MW-NASB-094 (68.34)

→ INTERPRETED DIRECTION OF  
 GROUND-WATER FLOW

69 — INTERPRETED POTENTIOMETRIC SURFACE;  
 DASHED WHERE INFERRED  
 (CONTOUR INTERVAL = 2 FT)

—\*—\*— CHAIN LINK FENCE

WELL DESIGNATION	WELL RISER ELEVATION (FT MSL)
MW-NASB-065	74.29
MW-NASB-066	78.79
MW-NASB-067	74.30
MW-NASB-068	74.86
MW-NASB-044	73.18
MW-NASB-049	66.97
MW-NASB-051	73.20
MW-NASB-054	75.49
MW-NASB-056	73.53
MW-NASB-058	69.80
MW-NASB-062	80.70
MW-NASB-205	71.39
MW-NASB-206	59.01
MW-NASB-207	66.22
MW-NASB-208	74.70
MW-NASB-209	75.29
MW-NASB-210	77.55
MW-NASB-211	75.55
MW-NASB-213	76.81
MW-NASB-091	76.29
MW-NASB-092	77.24
MW-NASB-093	77.67
MW-NASB-094	77.30
MW-NASB-095	79.15
MW-NASB-096	73.56



NOTE:  
1. MW-NASB-091 IS SCREENED BELOW A CLAY LAYER AND EXHIBITS SIGNIFICANTLY LOWER WATER ELEVATIONS. THEREFORE, THIS WELL WAS NOT INCLUDED DURING CONTOUR MAP CONSTRUCTION.

POTENTIOMETRIC SURFACE DATA FOR SITE 7  
 OLD NAVY FUEL FARM AND BUILDING 95  
 2 SEPTEMBER 1997 DATA  
 NAVAL AIR STATION, BRUNSWICK, MAINE

FIGURE 7

DESIGN: SY	 EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. <small>           18 Lovell Circle            Sparks, Maryland 21152            (301) 771-4900         </small>	DATE: 7 JANUARY 1998
DRAWN: SYC		SCALE: AS SHOWN
CHECKED: IKR		PROJECT NO.: 29600.47
PROJECT MANAGER: -CEM		SHEET NO.: -



TABLE 1 SUMMARY OF WATER LEVEL GAUGING DATA COLLECTED AT  
SITE MONITORING WELLS FROM 9 JANUARY TO 4 NOVEMBER 1997  
BUILDING 95, NAVAL AIR STATION, BRUNSWICK, MAINE

Gauging Date	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of PVC well riser)	Depth to Water (ft below top of PVC well riser)	Water Table Elevation (ft MSL)
<b>MW-NASB-065</b>				
09 JAN 1997	74.29	15.50	3.65	70.64
07 MAR 1997	74.29	15.50	3.65	70.64
02 MAY 1997	74.29	15.50	2.34	71.95
02 JUL 1997	74.29	15.50	4.86	69.43
02 SEP 1997	74.29	15.50	5.79	68.50
04 NOV 1997	74.29	15.50	5.09	69.20
<b>MW-NASB-066</b>				
09 JAN 1997	78.79	19.79	7.23	71.56
07 MAR 1997	78.79	19.79	7.45	71.34
02 MAY 1997	78.79	19.79	6.23	72.56
02 JUL 1997	78.79	19.79	8.52	70.27
02 SEP 1997	78.79	19.79	9.55	69.24
04 NOV 1997	78.79	19.79	9.12	69.67
<b>MW-NASB-067</b>				
09 JAN 1997	74.30	15.00	3.32	70.98
07 MAR 1997	74.30	15.00	3.58	70.72
02 MAY 1997	74.30	15.00	2.22	72.08
02 JUL 1997	74.30	15.00	4.73	69.57
02 SEP 1997	74.30	15.00	5.71	68.59
04 NOV 1997	74.30	15.00	5.15	69.15
<b>MW-NASB-068</b>				
09 JAN 1997	74.86	15.05	4.44	70.42
07 MAR 1997	74.86	15.05	4.50	70.36
02 MAY 1997	74.86	15.05	3.18	71.68
02 JUL 1997	74.86	15.05	5.64	69.22
02 SEP 1997	74.86	15.05	6.60	68.26
04 NOV 1997	74.86	15.05	5.93	68.93
NOTE: MSL = Mean sea level. PVC = Polyvinyl chloride.				

TABLE 2 SUMMARY OF WATER LEVEL GAUGING DATA COLLECTED AT SITE  
MONITORING WELLS FROM 9 JANUARY TO 4 NOVEMBER 1997,  
OLD NAVY FUEL FARM, NAVAL AIR STATION, BRUNSWICK, MAINE

Date	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft) <sup>(a)</sup>	Depth to LNAPL <sup>(a)</sup>	LNAPL Thickness	Corrected Water Table Elevation (ft MSL) <sup>(b)</sup>
<b>MW-NASB-044</b>						
09 JAN 1997	73.18	15.32	2.86	---	---	70.32
07 MAR 1997	73.18	15.32	3.26	---	---	69.92
02 MAY 1997	73.18	15.32	2.14	---	---	71.04
03 JUL 1997	73.18	15.32	3.53	---	---	69.65
02 SEP 1997	73.18	15.32	4.40	---	---	68.78
04 NOV 1997	73.18	15.32	3.85	---	---	69.33
<b>MW-NASB-049</b>						
09 JAN 1997	66.97	12.23	5.66	---	---	61.31
07 MAR 1997	66.97	12.23	5.45	---	---	61.52
02 MAY 1997	66.97	12.23	5.20	---	---	61.77
03 JUL 1997	66.97	12.23	6.12	---	---	60.85
02 SEP 1997	66.97	12.23	8.99	---	---	57.98
04 NOV 1997	66.97	12.23	7.85	---	---	59.12
<b>MW-NASB-051</b>						
09 JAN 1997	73.20	16.15	4.15	---	---	69.05
07 MAR 1997	73.20	16.15	4.12	---	---	69.08
02 MAY 1997	73.20	16.15	3.68	---	---	69.52
03 JUL 1997	73.20	16.15	5.41	---	---	67.79
02 SEP 1997	73.20	16.15	7.44	---	---	65.76
04 NOV 1997	73.20	16.15	6.89	---	---	66.31
<b>MW-NASB-054</b>						
09 JAN 1997	75.49	16.15	7.84	---	---	67.65
07 MAR 1997	75.49	16.15	6.28	---	---	69.21
02 MAY 1997	75.49	16.15	4.68	---	---	70.81
03 JUL 1997	75.49	16.15	6.73	---	---	68.76
02 SEP 1997	75.49	16.15	7.80	---	---	67.69
04 NOV 1997	75.49	16.15	6.99	---	---	68.50
(a) As measured from top of polyvinyl chloride well casing.						
(b) Based on an assumed specific gravity of 0.83 for the LNAPL.						
NOTE: Dashes (---) indicate LNAPL not detected in well.						
LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level.						

Date	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft) <sup>(a)</sup>	Depth to LNAPL <sup>(a)</sup>	LNAPL Thickness	Corrected Water Table Elevation (ft MSL) <sup>(b)</sup>
<b>MW-NASB-056R</b>						
09 JAN 1997	72.28	14.50	No data	---	---	No data <sup>(c)</sup>
07 MAR 1997	72.28	14.50	No data	---	---	No data <sup>(c)</sup>
02 MAY 1997	72.28	14.50	No data	---	---	No data <sup>(c)</sup>
03 JUL 1997	72.28	14.50	No data	---	---	No data <sup>(c)</sup>
02 SEP 1997	72.28	14.50	No data	---	---	No data <sup>(c)</sup>
04 NOV 1997	72.28	14.50	No data	---	---	No data <sup>(c)</sup>
<b>MW-NASB-058</b>						
09 JAN 1997	69.80	16.30	5.96	---	---	63.84
07 MAR 1997	69.80	16.30	5.99	---	---	63.81
02 MAY 1997	69.80	16.30	7.70	---	---	62.10
03 JUL 1997	69.80	16.30	6.29	---	---	63.51
02 SEP 1997	69.80	16.30	7.13	---	---	62.67
04 NOV 1997	69.80	16.30	6.61	---	---	63.19
<b>MW-NASB-061R</b>						
09 JAN 1997	75.52	12.90	4.65	---	---	70.87
07 MAR 1997	75.52	12.90	Frozen	---	---	---
02 MAY 1997	75.52	12.90	3.52	---	---	72.00
03 JUL 1997	75.52	12.90	5.38	---	---	70.14
02 SEP 1997	75.52	12.90	5.80	---	---	69.72
04 NOV 1997	75.52	12.90	5.24	---	---	70.28
<b>MW-NASB-062</b>						
09 JAN 1997	80.70	16.80	8.24	---	---	72.46
07 MAR 1997	80.70	16.80	8.13	---	---	72.57
02 MAY 1997	80.70	16.80	7.90	---	---	72.80
03 JUL 1997	80.70	16.80	9.45	---	---	71.25
02 SEP 1997	80.70	16.80	11.25	---	---	69.45
04 NOV 1997	80.70	16.80	10.60	---	---	70.10
<b>MW-NASB-205</b>						
09 JAN 1997	71.39	9.50	6.88	---	---	64.51
07 MAR 1997	71.39	9.50	6.78	---	---	64.61
02 MAY 1997	71.39	9.50	6.72	---	---	64.67
03 JUL 1997	71.39	9.50	7.86	---	---	63.53
02 SEP 1997	71.39	9.50	9.42	---	---	61.97
04 NOV 1997	71.39	9.50	7.51	---	---	63.88
<b>MW-NASB-206</b>						
09 JAN 1997	59.01	11.30	5.35	---	---	53.66
07 MAR 1997	59.01	11.30	4.15	---	---	54.86
02 MAY 1997	59.01	11.30	4.63	---	---	54.38
03 JUL 1997	59.01	11.30	6.41	---	---	52.60
02 SEP 1997	59.01	11.30	7.42	---	---	51.59
04 NOV 1997	59.01	11.30	6.36	---	---	52.65
(c) PVC well riser obstructed; unable to be gauged.						

Date	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of well riser)	Depth to Water (ft) <sup>(a)</sup>	Depth to LNAPL <sup>(a)</sup>	LNAPL Thickness	Corrected Water Table Elevation (ft MSL) <sup>(b)</sup>
<b>MW-NASB-207</b>						
09 JAN 1997	66.22	17.65	5.90	---	---	60.32
07 MAR 1997	66.22	17.65	6.27	---	---	59.95
02 MAY 1997	66.22	17.65	5.43	---	---	60.79
03 JUL 1997	66.22	17.65	7.18	---	---	59.04
02 SEP 1997	66.22	17.65	7.97	---	---	58.25
04 NOV 1997	66.22	17.65	6.49	---	---	59.73
<b>MW-NASB-208</b>						
09 JAN 1997	74.70	13.00	9.87	---	---	64.83
07 MAR 1997	74.70	13.00	10.48	---	---	64.22
02 MAY 1997	74.70	13.00	9.25	---	---	65.45
03 JUL 1997	74.70	13.00	10.81	---	---	63.89
02 SEP 1997	74.70	13.00	11.26	---	---	63.44
04 NOV 1997	74.70	13.00	11.30	---	---	63.40
<b>MW-NASB-209</b>						
09 JAN 1997	75.29	11.45	7.66	---	---	67.63
07 MAR 1997	75.29	11.45	7.50	---	---	67.79
02 MAY 1997	75.29	11.45	6.99	---	---	68.30
03 JUL 1997	75.29	11.45	8.36	---	---	66.93
02 SEP 1997	75.29	11.45	9.14	---	---	66.15
04 NOV 1997	75.29	11.45	8.80	---	---	66.49
<b>MW-NASB-210</b>						
09 JAN 1997	77.55	16.20	7.35	---	---	70.20
07 MAR 1997	77.55	16.20	7.24	---	---	70.31
02 MAY 1997	77.55	16.20	6.30	---	---	71.25
03 JUL 1997	77.55	16.20	8.18	---	---	69.37
02 SEP 1997	77.55	16.20	9.00	---	---	68.55
04 NOV 1997	77.55	16.20	8.59	---	---	68.96
<b>MW-NASB-211</b>						
09 JAN 1997	75.55	9.88	4.94	---	---	70.61
07 MAR 1997	75.55	9.88	6.78	---	---	68.77
02 MAY 1997	75.55	9.88	5.10	---	---	70.45
03 JUL 1997	75.55	9.88	7.52	---	---	68.03
02 SEP 1997	75.55	9.88	8.82	---	---	66.73
04 NOV 1997	75.55	9.88	8.90	---	---	66.65
<b>MW-NASB-213</b>						
09 JAN 1997	76.81	11.57	5.98	---	---	70.83
07 MAR 1997	76.81	11.57	5.01	---	---	71.80
02 MAY 1997	76.81	11.57	3.88	---	---	72.93
03 JUL 1997	76.81	11.57	6.31	---	---	70.50
02 SEP 1997	76.81	11.57	8.75	---	---	68.06
04 NOV 1997	76.81	11.57	9.00	---	---	67.81

TABLE 3 SUMMARY OF WATER LEVEL GAUGING DATA COLLECTED AT  
SITE MONITORING WELLS FROM 9 JANUARY TO 4 NOVEMBER 1997  
SITE 7, NAVAL AIR STATION, BRUNSWICK, MAINE

Date	Well Riser Elevation (ft MSL)	Depth to Well Bottom (ft below top of PVC well riser)	Depth to Water (ft below top of PVC well riser)	Water Table Elevation (ft MSL)
<b>MW-NASB-091</b>				
09 JAN 1997	76.29	20.54	13.12	63.17
07 MAR 1997	76.29	20.54	13.98	62.31
02 MAY 1997	76.29	20.54	12.91	63.38
03 JUL 1997	76.29	20.54	14.41	61.88
02 SEP 1997	76.29	20.54	15.85	60.44
04 NOV 1997	76.29	20.54	16.49	59.80
<b>MW-NASB-092</b>				
09 JAN 1997	77.24	12.40	5.82	71.42
07 MAR 1997	77.24	12.40	5.14	72.10
02 MAY 1997	77.24	12.40	4.82	72.42
03 JUL 1997	77.24	12.40	7.27	69.97
02 SEP 1997	77.24	12.40	8.61	68.63
04 NOV 1997	77.24	12.40	8.84	68.40
<b>MW-NASB-093</b>				
09 JAN 1997	77.67	18.95	5.75	71.92
07 MAR 1997	77.67	18.95	5.17	72.50
02 MAY 1997	77.67	18.95	4.80	72.87
03 JUL 1997	77.67	18.95	7.44	70.23
02 SEP 1997	77.67	18.95	9.30	68.37
04 NOV 1997	77.67	18.95	9.14	68.53
<b>MW-NASB-094</b>				
09 JAN 1997	77.30	12.40	5.66	71.64
07 MAR 1997	77.30	12.40	5.17	72.13
02 MAY 1997	77.30	12.40	4.47	72.83
03 JUL 1997	77.30	12.40	7.16	70.14
02 SEP 1997	77.30	12.40	8.96	68.34
04 NOV 1997	77.30	12.40	8.98	68.32
<b>MW-NASB-095</b>				
09 JAN 1997	79.15	16.88	7.06	72.09
07 MAR 1997	79.15	16.88	6.67	72.48
02 MAY 1997	79.15	16.88	5.87	73.28
03 JUL 1997	79.15	16.88	5.60	73.55
02 SEP 1997	79.15	16.88	10.57	68.58
04 NOV 1997	79.15	16.88	10.74	68.41
<b>MW-NASB-096</b>				
09 JAN 1997	73.56	11.00	3.48	70.08
07 MAR 1997	73.56	11.00	3.02	70.54
02 MAY 1997	73.56	11.00	2.76	70.80
03 JUL 1997	73.56	11.00	4.78	68.78
02 SEP 1997	73.56	11.00	6.85	66.71
04 NOV 1997	73.56	11.00	6.59	66.97
NOTE: MSL = Mean sea level; PVC = Polyvinyl chloride.				

**Appendix A**

**Field Record of  
Well Gauging Forms**













### FIELD RECORD OF WELL GAUGING

Project Name: <u>LTMP Bimonthly Gauging January</u> <sup>Site 7</sup> <u>Fuel Farm</u>	Project No: <u>2960047</u>	Date: <u>1/9/97</u>
Weather/Temperature: <u>Overcast 20°</u> , <u>windy</u>		
EA Personnel: <u>SYC</u>	Equipment: <u>slope indicator, Solinst Interface Probe</u> <sup>Mini-PAC</sup>	

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft)	PVC Casing Elevation (ft)	Depth to Water (ft)	Measured Well Depth (ft)	Water Table Elevation (ft)
			Air Ambient	Well Mouth						
MW-205	Y Y	Yes	0.0	0.0	Good	-	71.39	6.88	9.50	64.51
MW-206	Y Y	Yes	0.0	0.0	Good	-	59.01	5.35	11.30	53.66
MW-207	Y Y	Yes	0.0	0.0	Good	-	66.22	5.90	17.65	60.32
MW-208	Y Y	Yes	0.0	0.0	Good	-	74.70	9.87	13.00	64.83
MW-209	Y Y	Yes	0.0	0.0	Good	-	75.29	7.66	11.45	67.63
MW-210	Y Y	Yes	0.0	0.0	Good	-	77.55	7.35	16.20	70.20
MW-211	Y Y	Yes	0.0	0.0	Good	-	75.55	4.94	9.82	70.61
MW-213	Y Y	Yes	0.0	0.0	Good	-	76.81	5.98*	11.57	70.83
MW-44	Y Y	Yes	0.0	0.0	Good	-	73.18	2.86	15.32	70.32
MW-49	Y Y	Yes	0.0	0.0	Good	-	66.97	5.66	59.45	61.31
MW-51	Y Y	Yes	0.0	0.0	Good	-	73.20	4.15	16.15	69.05
MW-54	Y Y	Yes	0.0	0.0	Good	-	75.49	7.84	16.15	67.65
MW-56A	Y Y	Yes	0.0	0.0	Good	-	72.28	* *	14.50	

NOTE: All measurements in feet mean sea level (MSL).

\* Well actively sparging

\*\* Unable to gauge well due to active sparging. When well cover is removed, water shoots out of the well casing.

### FIELD RECORD OF WELL GAUGING

Project Name: <u>LTMP Bi-monthly gauging January</u>	Site: <u>Fur Farm</u>	Project No: <u>2960047</u>	Date: <u>1/9/97</u>
Weather/Temperature: <u>overcast, 20°, windy</u>			
EA Personnel: <u>SYC</u>		Equipment: <u>Slope indicator, Solinst <sup>Minipac</sup> Interface Pro</u>	

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft)	PVC Casing Elevation (ft)	Depth to Water (ft)	Measured Well Depth (ft)	Water Table Elevation (ft)
			Air Ambient	Well Mouth						
MW-58	YY	Yes	0.0	0.0	Good		69.80	5.96	16.30	63.84
MW-61R	YY	Yes	0.0	0.0	Good		75.52	4.65	12.90	70.87
MW-62	YY	Yes	0.0	0.0	Good		80.70	8.24	16.80	72.54
MW-91	YY	Yes	0.0	0.0	Good		76.24	13.12	20.54	63.17
MW-92	YY	Yes	0.0	0.0	Good		77.24	5.82	12.40	71.42
MW-93	YY	Yes	0.0	0.0	Good		77.67	5.75	18.95	71.92
MW-94	YY	Yes	0.0	0.0	Good		77.30	5.66	12.40	71.64
MW-95	YY	Yes	0.0	0.0	Good		79.15	7.06	16.88	72.09
MW-96	YY	No	0.0	0.0	Lock tab broke on curr		73.56	3.48	11.00	70.08

SYC  
4/2/97

NOTE: All measurements in feet mean sea level (MSL).

### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: <u>LTMP Event 8 Old Fuel Farm</u>	Project No. <u>29600.47.7301</u>
Weather/Temperature: <u>Sunny, 20°, windy, blustery</u>	Date: <u>3/7/97</u>
EA Personnel: <u>SYC, MDC</u>	Equipment: <u>TVA-1000 Slope indicator Solinst interface meter</u>

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
MW-NASB-205	YY	Yes	0.0	0.0	Good		71.39	6.78			9.50	64.61
MW-NASB-206	YY	Yes	0.0	0.0	Good		59.01	4.15			11.30	54.86
MW-NASB-207	YY	Yes	0.0	0.0	Good		66.22	6.27			17.65	59.95
MW-NASB-208	YY	Yes	0.0	14.2	Good		74.70	10.48			13.00	64.22
MW-NASB-209	YY	Yes	0.0	2.1	Good		75.29	7.50			11.45	67.79
MW-NASB-210	YY	Yes	0.0	2.6	Good		77.55	7.24			16.20	70.31
MW-NASB-211	YY	Yes	0.0	5.290	Good		75.55	6.78			9.88	68.37
MW-NASB-051	YY	Yes	0.0	0.0	Good		76.81	5.01			11.57	71.80
MW-NASB-016	YY	Yes	0.0	0.0	Good		73.20	4.12			16.15	69.08
MW-NASB-047	YY	Yes	0.0	0.0	Good			4.51			15.20	
MW-NASB-049	YY	Yes	0.0	0.0	Good			10.29			30.00	
MW-NASB-050	YY	Yes	0.0	0.0	Good		66.97	5.45			12.23	54.74
MW-NASB-058	YY	Yes	0.0	0.0	Good		66.81	6.52			38.32	60.29
MW-NASB-043	YY	No*	0.0	13.7	Good		69.80	5.99			16.30	63.81
							98.29	Frozen			9.00	—

(a) Based on an assumed specific gravity of 0. for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

\* lock tab broke



### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: <u>LTMP Bimonthly gauging May 1997 Old Fuel Farm</u>	Project No. <u>29600.47.7220</u>
Weather/Temperature: <u>Sunny 45°</u>	Date: <u>5/2/97</u>
EA Personnel: <u>BDA, SYC</u>	Equipment: <u>TVA-1000 Solinst interface meter, Slope indicator</u>

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
MW-NASB 205	44	Yes	0.0	0.0	Good		71.39	6.72			9.50	64.67
MW-NASB 206	44	Yes	0.0	0.0	Good		59.01	4.63			11.30	54.38
MW-NASB 207	44	Yes	0.0	0.0	Good		66.22	5.43			17.65	60.79
MW-NASB 208	44	Yes	0.0	6.2	Good		74.76	9.25			13.00	65.45
MW-NASB 209	44	Yes	0.0	0.0	Good		75.29	6.99			11.45	68.30
MW-NASB 210	44	Yes	0.0	1.8	Good		77.55	6.30			16.20	71.25
MW-NASB 211	44	Yes	0.0	2,680	Good		75.55	5.10			9.88	70.45
MW-NASB 213	44	Yes	0.0	0.0	Good		76.81	3.88			11.57	72.93
MW-NASB 051	44	Yes	0.0	0.0	Good		73.20	3.68			16.15	69.52
MW-NASB 046	44	Yes	0.0	0.0	Good		71.02	3.42			15.20	67.60
MW-NASB 047	44	Yes	0.0	0.0	Good		72.09	8.91			30.00	63.18
MW-NASB 049	44	Yes	0.0	0.0	Good		66.97	5.20			12.23	61.77
MW-NASB 050	44	Yes	0.0	0.0	Good		66.81	5.47			38.32	61.34
MW-NASB 058	44	Yes	0.0	0.0	Good		69.80	7.70			16.30	62.10
MW-NASB 043	44	Yes	0.0	14.6	Good		73.88	5.59			9.00	68.29

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: <u>LTMP Bimonthly gauging May 1997 Old Fuel Farm</u>	Project No. <u>29600.47.7220</u>
Weather/temperature:	Date:
EA Personnel:	Equipment: <u>TVA-1000, Slope indicator, Solinst interface meter</u>

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
MW-NASB 056R	44	Yes	0.0	*	Good		75.28	*			14.50	—
MW-NASB 057	44	Yes	0.0	0.0	Good		74.02	7.28			38.60	66.74
MW-NASB 054	44	Yes	0.0	0.0	Good		75.49	4.68			16.15	70.81
MW-NASB 055	44	Yes	0.0	0.0	Good		75.41	4.69			41.62	70.72
MW-NASB 061R	44	Yes	0.0	0.0	Good		75.52	3.52			12.90	72.00
MW-NASB 044	44	Yes	0.0	0.0	Good		73.18	2.14			15.32	71.04
MW-NASB 045	44	Yes	0.0	0.0	Good		73.80	7.08			59.45	66.72
MW-NASB 062	44	Yes	0.0	0.6	Good		80.70	7.90			16.80	72.80
MW-NASB 063	44	Yes	0.0	0.0	Good		81.57	14.65			51.25	66.92
MW-NASB 059	NY	No	0.0	0.0	Poor**			1.35				

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

\* sparging

\*\* no longer a box

### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: LTMP Event 9 July 1997 Old Ford Farm	Project No. 29600.47.7302
Weather/Temperature: Overcast, rainy, 60°	Date: 7/3/97
EA Personnel: SYC, KR	Equipment: Slope indicator, TUA-1000

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
MW-NASB 205	YY	Y	0	0	Good		71.39	7.86			9.50	63.53
204	YY	Y	0	0	Good		59.01	6.41			11.30	52.60
207	YY	Y	0	0	Good		66.22	7.18			17.65	59.04
208	YY	Y	0	4.8	Good		74.70	10.81			13.00	63.89
209	YY	Y	0	1.0	Good		75.29	8.36			11.45	66.93
210	YY	Y	0	1.3	Good		77.55	8.18			16.20	69.37
211	YY	Y	0	2480	Good		75.55	7.52			9.88	68.03
213	YY	Y	0	3.2	Good		76.81	6.31			11.57	70.50
051	YY	Y	0	0	Good		73.20	5.41			16.15	67.79
044	YY	Y	0	0	Good		71.02	5.46			15.20	65.56
047	YY	Y	0	0	Good		72.09	10.53			30.00	61.56
049	YY	Y	0	0	Good		66.97	6.12			12.23	60.85
050	YY	Y	0	0	Good		66.81	6.80			38.32	60.01
058	YY	Y	0	0	Good		69.80	6.29			16.36	63.51
043	YY	Y	0	0	Good		73.88	DRY			9.00	—

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: <u>LIMP Event 9 July 1997 Fuel Farm</u>	Project No. <u>29600.47.7302</u>
Weather/Temperature: <u>overcast, rainy, 60°</u>	Date: <u>7/13/97</u>
EA Personnel: <u>SYC, KR</u>	Equipment: <u>Slope indicator, TVA-1000</u>

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
56R	Y Y	Yes	0	*	Good		75.28	*			14.50	—
57	Y Y	Yes	0	0	Good		74.02	9.48			38.60	64.54
54	Y Y	Yes	0	0	Good		75.49	6.73			16.15	68.76
55	Y Y	Yes	0	0	Good		75.41	6.60			41.62	68.81
61R	Y Y	Yes	0	0	Good		75.52	5.38			12.90	70.14
44	Y Y	Yes	0	0	Good		73.18	3.53			15.32	69.65
43	Y Y	Yes	0	0	Good		73.80	8.83			59.45	64.97
62	Y Y	Yes	0	0	Good		80.70	9.45			16.80	71.25
63	Y Y	Yes	0	0	Good		81.57	15.99			51.25	65.58
59	N Y	No	0	0	* *			2.28				

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

\* active sparging

\* \* needs new curb box

### FIELD RECORD OF WELL GAUGING

Old Fuel Farm

Project Name/Site Name: LTMP Bimonthly Gauging September 1997	Project No. 29600.47
Weather/Temperature: overcast, 65°	Date: 9/2/97
EA Personnel: BDA, MDC	Equipment: Slope Indicator TVA-1000

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
MW-NASB 205	Y/Y	Yes	0	0	good		71.39	9.42			9.50	61.97
206	Y/Y	Yes	0	0	good		59.01	7.42			11.30	51.59
207	Y/Y	Yes	0	10	good		66.22	7.97			17.65	58.25
208	Y/Y	Yes	0	0	good		74.70	11.26			13.00	63.44
209	Y/Y	Yes	0	0	good		75.29	9.14			11.45	66.15
210	Y/Y	Yes	0	3	good		77.53	9.00			16.20	68.55
211	Y/Y	Yes	0	665	good		75.55	8.82			9.88	66.73
213	Y/Y	Yes	0	0	good		76.81	8.75			11.57	68.06
051	Y/Y	Yes	0	0	good		73.20	7.44			16.15	65.76
046	Y/Y	Yes	0	0	good		71.02	6.64			15.20	64.38
047	Y/Y	Yes	0	0	good		72.09	11.99			30.00	60.10
049	Y/Y	Yes	0	0	good		66.97	8.99			12.23	57.98
050	Y/Y	Yes	0	0	good		66.81	8.10			38.32	58.71
058	Y/Y	Yes	0	0	good		69.80	7.13			16.30	62.67
043	Y/Y	Tab broken	0	7	good		73.88	7.43			9.00	65.95

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

## FIELD RECORD OF WELL GAUGING

Old Fuel Farm

Project Name/Site Name: <u>LTMP Bimonthly Gauging September 1997</u>	Project No. <u>29600.47</u>
Weather/Temperature: <u>Overcast, 65°</u>	Date: <u>9/2/97</u>
EA Personnel: <u>BDA, MOC</u>	Equipment: <u>TVA-1000 Slope indicator</u>

Well No.	Labeled/Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
* MW-NASB 056R			0	0			75.28	—			14.50	—
057	Y/Y	Yes	0	0	good		74.02	11.17			38.60	62.85
054	Y/Y	Yes	0	0	good		75.49	7.80			16.15	67.69
053	Y/Y	Yes	0	0	good		75.41	7.61			41.62	67.80
061R	Y/Y	Yes	0	8	good		75.52	5.80			12.90	69.72
044	Y/Y	Yes	0	0	good		73.18	4.40			15.32	68.78
045	Y/Y	Yes	0	0	good		73.80	10.62			59.45	63.18
062	Y/Y	Yes	0	0	good		80.70	11.25			16.80	69.45
063	Y/Y	Yes	0	0	good		81.57	17.65			51.25	63.89

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.      \* Blocked

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.



### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: <u>LTMP Event 10</u> <u>Old Fuel Farm</u>	Project No. <u>29600,47,7303</u>
Weather/Temperature: <u>rainy, overcast, 55°</u>	Date: <u>11/4/97</u>
EA Personnel: <u>SCJR</u>	Equipment: <u>TVA-1000, Solinst inter face meter</u>

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation* (ft MSL)
			Air Ambient	Well Mouth								
MW-NASB 205	Y Y	Y	*	*	Good		71.39	7.51			9.50	63.88
MW-NASB 206	Y Y	Y	*	*	Good		59.01	6.36			11.30	52.65
MW-NASB 207	Y Y	Y	*	*	Good		66.22	6.49			17.65	59.73
MW-NASB 208	Y Y	Y	*	*	Good		74.70	11.30			13.00	63.40
MW-NASB 209	Y Y	Y	*	*	Good		75.29	8.80			11.45	66.49
MW-NASB 210	Y Y	Y	*	*	Good		77.55	8.59			16.20	68.96
MW-NASB 211	Y Y	Y	*	*	Good		75.55	8.90			9.88	66.65
MW-NASB 213	9.0	Y	*	*	Good		76.81	9.00			11.57	67.81
MW-NASB 051	Y Y	Y	*	*	Good		73.20	6.89			16.15	66.31
MW-NASB 046	Y Y	Y	*	*	Good		71.02	8.42			15.20	62.60
MW-NASB 047	Y Y	Y	*	*	Good		72.09	12.47			30.00	59.62
MW-NASB 049	Y Y	Y	*	*	Good		66.97	7.85			12.23	59.12
MW-NASB 050	Y Y	Y	*	*	Good		66.81	8.50			38.32	58.31
MW-NASB 058	Y Y	Y	*	*	Good		69.80	6.61			16.30	63.19
MW-NASB 043	Y Y	Y	*	*	Good		73.88	dry			9.00	—

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

\* unable to collect Voc concentrations due to rain



### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: <u>LTMP Event 10 Old Fuel Farm</u>	Project No. <u>29600.47.7303</u>
Weather/Temperature: <u>overcast, rainy, 55°</u>	Date: <u>11/4/97</u>
EA Personnel: <u>KR, SC</u>	Equipment: <u>TVA-1000 Solinst interface meter</u>

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft MSL)	PVC Casing Elevation (ft MSL)	Depth to Water (ft)	Depth to LNAPL (ft MSL)	LNAPL Thickness (ft MSL)	Measured Well Depth (ft)	Water Table Elevation <sup>(a)</sup> (ft MSL)
			Air Ambient	Well Mouth								
MW-NASB 056R	Y Y	Y	X	X	Good		75.28	blocked			14.50	—
MW-NASB 057	Y Y	Y	X	X	Good		74.62	11.54			38.60	62.48
MW-NASB 054	Y Y	Y	X	X	Good		75.49	6.99			16.15	68.50
MW-NASB 055	Y Y	Y	X	X	Good		75.41	7.06			41.62	68.35
MW-NASB 061R	Y Y	Y	X	X	Good		75.52	5.24			12.90	70.28
MW-NASB 044	Y Y	Y	X	X	Good		73.18	3.85			15.32	69.33
MW-NASB 045	Y Y	Y	X	X	Good		73.80	10.90			59.45	62.90
MW-NASB 062	Y Y	Y	X	X	Good		80.70	16.60			16.80	70.10
MW-NASB 063	Y Y	Y	X	X	Good		81.57	17.74			51.25	63.83

(a) Based on an assumed specific gravity of 0. \_\_\_ for LNAPL.

NOTE: LNAPL = Light, non-aqueous phase liquid; MSL = Mean sea level; PVC = Polyvinyl chloride; VOC = Volatile organic compounds.

\* Unable to collect VOC concentrations due to rain.

### FIELD RECORD OF WELL GAUGING

Project Name: <u>LTMP Bimonthly gauging January</u>	Site: <u>Fuel Farm</u>	Project No: <u>2960047</u>	Date: <u>1/9/97</u>
Weather/Temperature: <u>overcast, 20°, windy</u>			
EA Personnel: <u>SYC</u>		Equipment: <u>Slope indicator, Solinst <sup>Mini-Log</sup> Interface Pro</u>	

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft)	PVC Casing Elevation (ft)	Depth to Water (ft)	Measured Well Depth (ft)	Water Table Elevation (ft)
			Air Ambient	Well Mouth						
MW-58	YY	Yes	0.0	0.0	Good		69.80	5.96	16.30	63.84
MW-61R	YY	Yes	0.0	0.0	Good		75.52	4.65	12.90	70.87
MW-62	YY	Yes	0.0	0.0	Good		80.70	8.24	16.80	72.54
MW-91	YY	Yes	0.0	0.0	Good		76.29	13.12	20.54	63.17
MW-92	YY	Yes	0.0	0.0	Good		77.24	5.82	12.40	71.42
MW-93	YY	Yes	0.0	0.0	Good		77.67	5.75	18.95	71.92
MW-94	YY	Yes	0.0	0.0	Good		77.30	5.66	12.40	71.64
MW-95	YY	Yes	0.0	0.0	Good		79.15	7.06	16.88	72.09
MW-96	YY	No	0.0	0.0	Lock tab broken occur		73.56	3.48	11.00	70.08

NOTE: All measurements in feet mean sea level (MSL).







### FIELD RECORD OF WELL GAUGING

Project Name/Site Name: <u>LTMP Event 9 July 1997 Site 7</u>	Project No. <u>29600, 47.7302</u>
Weather/Temperature: <u>overcast, rainy, 60°</u>	Date: <u>7/3/97</u>
EA Personnel: <u>SYC, KR</u>	Equipment: <u>Slope indicator, TVA-1000</u>

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft)	PVC Casing Elevation (ft)	Depth to Water (ft)	Measured Well Depth (ft)	Water Table Elevation (ft)
			Air Ambient	Well Mouth						
MW-NASB 091	44	Y	0	0	Good		76.29	14.41	20.54	61.88
MW-NASB 092	44	Y	0	0	Good		77.24	7.27	12.40	69.97
MW-NASB 093	44	Y	0	0	Good		77.67	7.44	18.95	70.23
MW-NASB 094	44	Y	0	0	Good		77.30	7.16	12.40	70.14
MW-NASB 095	44	Y	0	0	Good		79.15	5.60	16.88	73.55
MW-NASB 096	44	Y	0	0	Good		73.56	4.78	11.00	68.78

NOTE: All measurements in feet mean sea level (MSL).

**FIELD RECORD OF WELL GAUGING**

Site 7

Project Name: LTMP Bimonthly Gauging September 1997	Project No: 29600.47	Date: 9/2/97
Weather/Temperature: Overcast, 65°		
EA Personnel: BDA, MDC	Equipment: TVA-1000, Slope Indicator	

Well No.	Labeled/ Capped	Well Locked	VOCs Concentration (ppm)		Casing/Seal Condition	Protective Casing Elevation (ft)	PVC Casing Elevation (ft)	Depth to Water (ft)	Measured Well Depth (ft)	Water Table Elevation (ft)
			Air Ambient	Well Mouth						
MUNASB 091	Y/Y	Yes	0	0	Good		76.29	15.85	20.54	60.44
092	Y/Y	Yes	0	0	Good		77.24	8.61	12.40	68.63
093	Y/Y	Yes	0	0	Good		77.67	9.30	18.95	68.37
094	Y/Y	Yes	0	25	Good		77.30	8.96	12.40	68.34
095	Y/Y	Yes	0	0	Good		79.15	10.57	16.88	68.58
096	Y/Y	Yes	0	0	Good		73.56	6.85	11.00	66.71

NOTE: All measurements in feet mean sea level (MSL).

